Texas Department of State Health Services

Comprehensive Clinical Management Program (CCMP) - Program Criteria Draft Document (January 2005)

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Introduction and Overview

This manual is designed to help EMS providers understand the Comprehensive Clinical Management Program (CCMP) planning, application and approval processes. It serves as a planning and pre-assessment guide for organizations administering or planning to administer a CCMP.

EMS has evolved in Texas from very humble beginnings. The first piece of legislation that had to do with what would become Texas EMS was passed in about 1943. Article 4590b required a traction splint and a first aid kit and an attendant with eight hours of first aid training to use them. There were no vehicle requirements. The first aid kit was not even defined. It was left to the attorney general to decide that it would consist of 15 simple items such as scissors, bandages and splints. Things continued along this line until about 1971. At that time the Texas Department of State Health Services's Civil Defense and Traffic Safety Division decided to begin offering voluntary ECA training to the citizens of Texas in a twenty-four hour course in their communities.

Things continued in this manner until 1984. In that year the Texas legislature passed the first comprehensive EMS Act in Texas and for the first time, "Joe the ambulance driver" was required to be an ECA. Fortunately many communities were also training EMTs and a few were even training Paramedics.

- In the eighties and nineties Texas adopted Federal Department of Transportation standard curriculums for its EMTs as well as modified DOT curriculums for its Paramedics, and EMS training began to be offered in various junior colleges around the State.
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- Today, EMS in Texas is, as it always has, evolving rapidly. Today's evolution is into sophisticated trauma systems and the personnel within these developing systems are being called upon to learn more, do more and be more than ever before. The key to continued success is no longer just willingness to serve. The key to success is ongoing improvement and professional development.
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- The CCMP is the next step in the evolution of EMS in Texas. Even though the CCMP is offered as a "recertification" option, it is truly an EMS provider function. The CCMP is **not** simply minimum standards that a provider must meet for a state license. It is a voluntary option that EMS providers may attempt in order to raise the bar in their communities. Operating a successful CCMP will require experience and resources that many providers will not want to dedicate on a full time basis. There is nothing wrong with that decision, as was mentioned previously; participating in the CCMP is strictly voluntary. EMS providers that choose to attempt this option are doing so of their own free will and accept the higher standards imposed by a program such as the CCMP.

Medical Control System versus Agency

There are several Medical Control Systems across Texas that offer medical direction, oversight, and education to multiple individual agencies. It is recognized that individual

agencies within the system may have varying resources, organizational cultures, or philosophies towards the CCMP process. CCMP is tied to the provider license and should be pursued by willing agencies in coordination with the Medical Control System. Through the process, the system and/or agencies should strive to demonstrate how they fulfill the requirements of CCMP for the entities wishing to achieve CCMP.

Steps Toward Program Approval

Planning and Preparation are the first steps toward state approval of a Comprehensive Clinical Management Program. Before submitting an application for a new program, the potential applicant should assess its available resources. An active medical director, who has adequate time to dedicate to the program, is essential.

Upon submission of the application, department personnel will review the information submitted and provide feedback concerning the proposed new program. When review of the application has been completed, program personnel will be notified. In those cases in which all the resources necessary to the success of a CCMP appear to be available or obtainable, the applicant will be instructed to begin a self-assessment.

Preparation of the self-assessment is the responsibility of the medical director and provider administrator. All planning and preparation must be committed to writing in a self-assessment document and submitted to the appropriate TDSHS regional office for review, verification and approval. Each regional office will offer technical assistance by providing guidance and support to programs. Regional staff will help the program ensure that the quality standards expected for each CCMP are met. Because regions vary greatly in population, resources and needs, the approval process may vary slightly among regions. Regional office staff will alert the program personnel to these variations in process while assisting them in maintaining and adhering to expected standards.

Once the self-assessment has been approved, the provider will be expected to implement the program for at least six (6) months prior to the formal site visit. The formal site visit will be required before the CCMP is approved. This phase of the approval process requires medical directors and administrators to verify all required components of the self-assessment during an on site visit. The site visit is a vital part of the evaluation and improvement cycle. It requires cooperation, maturity and the ability to take and act upon constructive criticism. Improving any process or program requires participation from everyone associated with the program or process. Therefore, the site visit team will insist upon talking with the medical director, staff, administrators and other appropriate parties during the site visit.

Planning and Preparation

Submitting a Program Application

Anyone who has the desire and dedicated resources necessary to maintain a CCMP may submit an application for a CCMP as set forth in rule 157.yy (number to be assigned later.) The application should be submitted to the appropriate EMS regional office. Upon reviewing the application, regional personnel will want to meet with the applicant to begin an evaluation of the applicant's skills, abilities, resources and plans concerning clinical management. Those who have the abilities and resources to support a successful CCMP will be encouraged to continue their planning by completing a self-assessment.

Preparing The Self-assessment

All the planning and preparation a provider carries out in anticipation of providing a CCMP must be documented in a self-assessment.

After reviewing a complete self-assessment report, the regional office shall notify the program of deficiencies or, noting none, notify the provider of the intent to perform a site visit. A program and its self-assessment are usually approved for a two (2) year period. However, the self-assessment is meant to be a living document, and it must be continuously revised to reflect ongoing evaluation and refinement of the program.

To successfully support a CCMP, the provider must plan and prepare in several areas. All these areas and the planning associated with them must be documented in the self-assessment. These areas include but are not limited to:

- Initial Assessment of New Care Providers
- Preceptor/Internship
- Required Professional Development
- Protocol/Standards of Care Management
- Credentialing Process
- Quality Improvement
- Service and Performance Inquiry System
- On-going Corrective Action
- Established Committees
- Medical Director Accreditation

In preparing the self-assessment report, information must be well organized and in a manner that clearly indicates the providers willingness and ability to support a CCMP. The self-assessment must be produced on standard 8 ½ by 11-inch paper and all pages must be numbered consecutively. Three copies of the self-assessment report are to be mailed or delivered to the appropriate Regional EMS Office along with a fee of $xxx.xx. The medical director and provider administrator must retain at least one copy for reference.

In addition to addressing each of the areas listed above, all programs must submit the following general information with their self-assessment:

- Name and address of program
- Name and phone number of provider administrator and medical director
- Name and phone number of person responsible for the preparation of the self-assessment
- Attach an organizational chart of the sponsoring institution that shows the relationships under which the program operates and all persons directly involved with the program
- Describe how the resources of the program are sufficient to assume the achievement of program goals

Upon review and determination that the self-assessment is complete, a letter will be sent to the medial director and provider administrator, which will outline the procedures for setting up a site visit. Such notification shall take place not later than sixty-days (60) from the submission of a complete self-assessment.

In addition to addressing all the program components in the self-assessment, complete records must be maintained documenting problems, successes, administrative actions and program revisions that unfold as the program progresses. The site visit team at the initial and subsequent site visits will review all files.

The provider must develop plans as to how program activities will be documented, how staff will be evaluated and how outcomes can be substantiated. During the site visit, the team will ask for such documentation.

The Site Visit

After the self-assessment is approved, the program will be site visited. The regional office shall notify the program in writing at least 90 days in advance of the proposed visit. The program and regional staff shall agree upon an appropriate date for the site visit. However, the program will not be allowed to delay the site visit more than 90 days beyond the date proposed by the Department.

The site visit team will be composed of department representatives along with a physician medical director and a provider administrator approved to conduct on-site CCMP reviews. The applicant agency shall be responsible for reasonable expenses incurred by the non-department members conducting the review.

Typical Schedule for the Site Visit Evaluation

The full exposure of the program to the site visit evaluation team provides the evaluators with an awareness of both the objective and subjective components of the program. The medical director or provider administrator establishes the actual schedule. It may vary to accommodate the program and its personnel, but it may not exempt any program personnel from participation and it may not exempt any program component from review.

The schedule should include but is not limited to the following program personnel and types of activities:

- Meeting with the medical director and provider administrator to review the schedule of activities planned for the site visit.
- Interviewing the provider's staff to obtain general reactions to the program and to assess the feelings of involvement in the total program. As this is a comprehensive program, staff of all levels and from all aspects of the provider (billing, dispatch, etc.) must be included.
- Reviewing of records to assess the manner in which the program maintains records of all aspects of the program.
- Visiting hospitals to assess their general environment as it relates to the provision of adequate patient care.
- Preparing an initial report to allow the evaluators to provide a short oral summary of findings, conclusions, comments and concerns regarding the program's compliance with guidelines. Program representatives may respond to this report and allow for clarification to insure that the final report is reflective of the current state of the program. (A final written report will be mailed to the program director within 30 days of the site visit.)

Program Approval

Once an agency successfully completes a site visit, it will become an approved CCMP provider. If the program is found to be in substantial compliance with established criteria and standards, and all fees and required documents have been submitted, the department shall approve the program for a period to coincide with the provider's license renewal period and issue an approval number. The provider administrator and medical director shall receive a written report of the site-review team's findings, including areas of exceptional strength, areas of weakness and recommendations for improvement.

Approval of the program shall be specific to the named medical director and all aspects of the CCMP must be maintained at all times. If at any time, a provider agency changes any aspect of the CCMP it must be reported immediately to the TDSHS regional office with an explanation. The TDSHS office will determine if another site visit is necessary to ensure compliance with the rule. The TDSHS regional office may perform unannounced site visits at any time.

Program Re-approval

To be eligible for re-approval, the program shall maintain all the requirements of this manual, submit an application and non-refundable fee of $XXX.00 and prepare an update to the program's self-assessment that addresses significant changes in the program's personnel, structure, processes, policies, or procedures. The agency must also document progress toward correction of any deficiencies identified by the program or the department and may have to host another on-site review if one is deemed necessary by the department or requested by the program.

Initial Assessment of New Field Care Providers

The term "candidate" refers to new job applicants, individuals seeking promotion or position changes, and those achieving a new EMS certification. This term covers all EMS professionals, career and volunteer.

For all types of EMS agencies, the initial screening and assessment of candidates is a difficult, time consuming, and often arduous task. Although personnel may share the same color patch, the education, training, and experience among similarly certified individuals varies greatly. Failing to identify poor candidates can cost an agency time, resources, and reputation, potentially exposing the agency to unnecessary risk of litigation.

This requires that systems implement and maintain strong initial assessment programs. This preliminary assessment tool will allow the agency's management and medical director to have insight into the candidate's strengths and weaknesses thereby facilitating successful completion of the credentialing process for that individual.

The screening process not only identifies candidates optimally suited for success, the data collected during the process will provide the system valuable information for the quality improvement program. The data can be used to design education programs to bring candidates to entry-level requirements. Over time, initial assessment data can be correlated to job performance data to provide predictive measures for future hiring and promotions.

A prerequisite to any initial screening process is the presence of a comprehensive position description, including but not limited to:

Specific position duties

- Essential duties and responsibilities
- Education Qualifications
- Professional Experience
- Computer Skills
- Language Skills
- Math Skills
- Reasoning Ability and Critical Thinking Skills
- Interpersonal and Communication Skills
- Certificates, Licenses, and Registration
- Physical Demands of the position

Initial assessment should begin with a thorough screening to insure that candidates meet the minimum qualifications and requirements outlined in the position description. The process usually continues with an assessment of the candidate's knowledge, skills, and experience.

Requirements for CCMP Approval

Agencies should be able to provide the job description for each clinical position and document a process by which candidates are screened to insure that they meet the minimum qualifications for the position for which they desire.

Required:

Written assessment of didactic knowledge

- This knowledge evaluation should be specific to the certification level of the applicant and focus on clinical information.
- Agencies should NOT rely on the Texas Department of State Health Services or National Registry examination as their written assessment tool.
- Agencies are encouraged to use a numeric scoring system to allow the agency and candidates to easily assess the level of preparedness for the candidate. The use of non-specific Pass/Fail criteria is discouraged.

Situation-based practical assessment

- This evaluation is designed to assess the candidate's ability to process information and make quality clinical decisions. It may also provide insight into the candidate's interpersonal skills.

Background Investigation

- This portion of the process should include verification of TDSHS certification, and research into the candidate's criminal history, work history, driving record, and administrative history with the Bureau of Emergency Management as a minimum data set.

Other

- Presence of detailed positions descriptions
- Documentation of screening process of applications to insure minimum qualifications are met
- Documentation of Medical Director involvement in the initial screening process criteria

Desired:

Practical Skill assessment

- In addition to the situation-based, many agencies choose to conduct separate practical skills evaluations on certain skills. Most elect to do this if they cannot devise a method of including the skills in the situational assessments.

Personality profiles

- Many industries, including the National Football League, perform personality profiles on potential candidates. These evaluations can identify personality traits that correlate with job satisfaction and overall successful performance in the specific industry.

In most systems, the Medical Director may have limited involvement in the actual hiring process. It is understood that different systems will have different approaches to the

initial assessment process. At a minimum, the medical director shall be familiar with the details of the assessment process. Likewise, the medical may have a range of participation in the actual screening process. This might include an interview or participation in scenario based evaluation.

In Medical Control Systems, the new hires are not the employees of the medical control firm or the Medical Director, but rather the individual agency. The initial screening process is one of the best opportunities for risk management with respect to clinical issues. The agency should be able to demonstrate how they incorporate the medicl control system into the hiring process assist them in determining the suitability of each candidate for the system.

Ideally, the Medical Director (or employees of the Medical Control System on behalf of the Medical Director) actively participate in the initial screening process of the individuals agencies. At a minimum, Medical directors are encouraged to participate in the cumulative review of candidates and have a voice in the final selection of successful candidates.

Applicants should be able to demonstrate the Medical Directors involvement in the initial screening process.

Preceptor / Internship

The term “internship” is used to refer to on the job training, mentoring, and/or precepting. Such a process can be applied to students, new employees, and those that are promoting or changing to new positions. The term “preceptor” is used generically to refer to an actual preceptor, field training officer, mentor, or other such person that works directly with an individual participating in an internship.

Initial assessment identifies candidates that possess the requisite traits necessary to be successful in a particular position. Insuring success requires job specific mentoring, training, and skill building.

The internship provides the opportunity for individual care providers to transition into the actual work environment under the guidance of an experienced preceptor. The internship allows the opportunity for new caregivers to refine clinical patient assessment and therapeutic skills in the presence of a preceptor thereby accelerating the maturation process while protecting the public from errors due to lack of experience on the part of a new provider. The new caregiver can become proficient in the delivery of quality patient care while becoming familiar with system specific operational practices.

Ideally, the internship would involve direct patient care across numerous patient interactions with a variety of presenting complaints, ranging from stable to critical. However, budget, manpower, and call volume realities may make this goal difficult if not impossible. CCMP candidates must be able to demonstrate an effective internship

process. They may make use of mixture of scenario based evaluations and actual life patient care observation. If scenario based evaluation is utilized, the agency must be able to demonstrate how the process duplicated the realism and spontaneity of actual emergency responses.

There must be a defined process for selecting and training the preceptors. The Medical Director, in consultation of other appropriate parties, should make the final selection of preceptors. In addition, preceptors should be individually authorized to mentor and oversee up to specific certification levels. This allows basic EMT's to potentially precept other EMT's. Further, a new paramedic with a wealth of previous EMS experience may be an excellent preceptor for a lower level of certification, even if the medical director is not comfortable with the individual precepting other paramedics.

Post episode reviews (i.e. chart audits and interviews) are not a substitute for real-time preceptor evaluation.

Various individuals within the organization may develop preceptor training. Agencies may also choose to outsource this development process. Regardless of who develops the training program, the medical director is responsible for approving the clinical aspects of the training program.

An internship manual describing the objectives, content, and measurement points of the internship must be developed and distributed to all preceptors and candidates. The manual should include all the necessary forms to document the progress and successful completion of the internship. Agencies must be able to demonstrate how internship objectives have been fulfilled.

To insure consistency and to allow the preceptor to monitor the progress of each individual candidate, interns should be assigned to one specific preceptor. In some cases, additional preceptors may be necessary to meet special needs, but the number of different preceptors for any individual candidate should be kept to a minimum.

The preceptor is responsible for insuring that the intern is thoroughly briefed on all operational and clinical issues that impact patient care, including but not limited to:

- Individual protocols
- Individual clinical procedures
- Operational and clinical policies
- Documentation
- Radio communication
- Territory orientation*
- Unit operations
- Agency norms and culture

* This component is often under developed.

Requirements for CCMP Approval

Interns will ride as "third" person on the ambulance until the preceptor establishes that the intern has met pre-established competencies as defined by the Medical Director

Interns will ride as a "second" person until the preceptor establishes that the intern meets the prerequisites for independent duty as determined by the Medical Director. The Internship Manual should address how the preceptor monitors and measures the intern's progress.

The pre-requisites for independent duty shall require at a minimum, that the intern demonstrate thorough understanding of the agency protocols, ability to use protocol and procedure manuals as a reference tool, and proficiency in clinical procedures. Agencies are encouraged to develop measurement tools for other operational areas that impact patient care as well.

Proficiency in clinical procedures must be verified by a second evaluator for objectivity purposes, in addition to the assigned preceptor.

It is recommended that the intern be evaluated on a representative sample of call types, such as adult, pediatric, trauma and others identified by the medical direction.

Toward the conclusion of the internship, the intern must complete protocol testing. Although this evaluation may include a practical component, agencies are encouraged to utilize a written assessment tool so that a broader scope of material may be assessed. The medical director, in coordination with other appropriate parties, must establish pass/fail criteria for the protocol evaluation.

Organization must have an established re-education/remediation process for those that are not successfully in completing the process.

Upon completion of the internship, the intern should complete a comprehensive evaluation of the internship process. The agency should use this information to modify and improve the process for future candidates.

Required:

Defined preceptor selection process.

- The Medical Director with consultation of other appropriate parties must select appropriate preceptors. The medical director must approve the development and training of preceptors.

Internship proficiency criteria.

- Interns will ride as 3rd person until the preceptor establishes that the intern has met pre-established competencies as defined by the Medical Director
- Interns will ride as a 2nd person until preceptor establishes that the intern meets the prerequisites for independent duty as determined by the Medical Director.
- In addition to the preceptor, the intern must demonstrate proficiency to another evaluator.

- A process that allows the intern to evaluate the internship program.
- A process to promote inter-rater reliability

Desired:

- A representative sample of call types (minimum number to be determined by the Medical Director) of critically ill adult patients, pediatric patients and trauma patients) will be correctly cared for by the intern prior to release from internship.

Required Professional Development

Comprehensive Clinical Management Programs must implement and maintain professional development programs designed to reinforce current knowledge and to expand the knowledge base of the pre-hospital provider.

Professional development is the natural outgrowth of an outcomes based quality improvement program. Through the QI program, an agency will define objectives that must be addressed through professional development.

Agencies will provide a minimum number of professional development hours for their personnel designed to meet objectives identified through the quality improvement program. The minimum number of hours for each certification shall be:

- 24 hours per year for certified and licensed Paramedics
- 20 hours per year for EMT-Intermediates
- 16 hours per year for Basic Emergency Medical Technicians
- 10 hours per year for Emergency Care Attendants

Other EMS personnel (i.e., flight nurses and communications personnel) will be required to obtain at least minimum continuing education as directed by the certifying or licensing authority. These hours may be concurrent with the requirements above.

At least 50% of professional development hours shall be in-person training.

Agencies shall offer professional development on at least a semiannual basis.

Professional development should span the three domains of learning (cognitive, psychomotor, and affective.) as appropriate.

The medical director shall be responsible for defining and approving the objectives of the professional development hours. The actual content development and presentation may be delegated to appropriate individuals. However, the medical director is responsible for insuring that the content meets the defined objectives.

Requirements for CCMP Approval

In larger systems or in Medical Control Systems, multiple instructors may be necessary to reach all the employee of the agency(s). Because of this, the potential exists for inconsistency in instructional delivery and the failure to meet the objections of the program. Agencies should be able to demonstrate the methods used to promote consistent delivery of the objectives and an evaluative process that monitors for potential deviation. Methods to promote consistent delivery might include curriculum develop by the instructional group, providing supporting materials for the curriculum, meetings of the instructional staff to discuss the material, or having instructors attended session prior to instructing.

Agencies should be able document strengths in their training program and describe how they overcome weaknesses. They should be able to document:

- credentials of their instructional staff
- involvement of the medical director
- correlation of quality review to educational objectives
- correlation of prospective goals to educational objectives
- meet the varying needs of the their staff
- administrative support for professional development
- appropriate methodology for the objectives offered
- appropriate class size for the objectives offered
- inter-rater reliability where appropriate
- method to evaluate long term impact of professional development activities

In addition to the quality improvement driven professional development needs addressed above, agencies are encouraged to require that personnel remain credentialed in nationally endorsed courses such as, Advanced Cardiac Life Support, Basic Trauma Life Support, and Pediatric Advanced Life Support (or locally determined equivalent). Some form of provider oriented CPR certification is encouraged as well. The maintenance of these credentials shall be in addition to the professional development requirements outlined above.

The following is a suggested list of credentials by certification:

	CPR	Cardiac	Trauma	Pediatrics
EMT	X		X	X
Intermediate	X		X	X
Paramedic	X	X	X	X

Agencies shall maintain appropriate records, including but not limited to:

- Current certifications and credentials
- Objectives
- Lesson plans
- Attendance rosters

- Completion records
- Course evaluations

Agencies are encouraged to reference the continuing education rule for guidelines for appropriate continuing education documentation.

Required:
Professional development hours.

- 24 hours per year for EMT-P's
- 20 hours per year for EMT-I's
- 16 hours per year for EMT's
- 10 hours per year for ECA's
- Other EMS personnel (i.e., flight nurses and communications personnel) will be required to obtain at least minimum continuing education as directed by the certifying or licensing authority.

Content and delivery.

- The CE content shall be defined and approved by the Medical Director.
- The CE content must be driven by the results of Quality Improvement efforts.
- At least 50% of CE is in-person training
- CE occurs on at least a semiannual or quarterly basis.

Desired:

- EMT's remain current on basic cardiac and current pediatric treatment techniques.
- EMT-I's remain current on basic cardiac, current pediatric and basic trauma treatment techniques.
- EMT-P's remain current on a nationally recognized and organized educational program for advanced cardiac, advanced trauma and advanced pediatric treatment techniques.

Protocol/Standards of Care Management

(**Note:** The term "protocol" will be used synonymously with the terms patient care guidelines, standing delegated orders, standing orders, and local standard of care.)

Protocol review and evaluation should be an on-going process. However, many agencies elect to make this a once a year process, or worse ignore the process all together. The former assumes that protocol knowledge degrades minimally throughout the year and only needs to be refreshed and re-measured annually. The latter assumes that pre-hospital personnel are all knowing and that there is no knowledge degradation in the industry's health care providers.

Intuitively, we know that neither of these assumptions are accurate. As humans, knowledge actively degrades from our memory. Only through consistent practice or reinforcement are we able to maintain cognitive and practical efficiency over time.

In truth, EMS personnel do not have to be all knowing or all remembering to make quality patient care decisions. Having a strong base knowledge and a solid set of user-friendly protocols as reference material should allow the provider ample knowledge, as long as it is used wisely. However, occasions will occur in which the provider is unable to reference the protocols in a timely fashion, leaving them will little more than their innate resources. Therefore, it is recommended that agencies implement and maintain some form of on-going protocol reinforcement.

Protocol evaluation is a three-step process.

1. Maintaining current protocols
2. Ongoing protocol reinforcement
3. Ongoing surveillance of protocol compliance

The medical director is responsible for insuring that the protocols are updated routinely and that they reflect the current clinical trends and best practices of the industry. While the medical director is responsible for the protocol content, the process of insuring that they remain current can be delegated and shared among the staff. Often, ancillary personnel perform the routine duties for the medical director. Field staff often take an active role in this process as well. Anecdotally, the greater the staff participation in protocol development, the greater the compliance with the protocols. As each new breakthrough in clinical fronts occur, a medical director must assess its application to the pre-hospital arena.

While medical directors are responsible for considering current industry trends, they are not bound to accept and incorporate those trends in the clinical practice. There are numerous reasons why a particular trend might not be incorporated. Agencies must balance the benefit to patients with the cost of implementation (financial, administrative, operational). The agency should be able to demonstrate a cost-benefit process used to determine when and if a particular protocol change should be implemented.

Regardless, on-going protocol review against current literature should be executed on at least an annual basis. Many agencies elect to do this on a quarterly basis, dedicating each period of the calendar to a particular component of the practice, i.e. medical, cardiac, trauma, or pediatrics.

Traditionally, protocol evaluation has taken the form of a written examination. Many agencies rely on this method, especially when new versions of the protocols are disseminated. Many alternative methods are available to agencies. In fact, one might attempt to implement a variety of methods in order to maintain interest in the process and reach a diverse population of learners.

Here are a few examples:

- Monthly case study with a protocol assessment on the topic. This might be accomplished in the classroom, on the internet, or as a independent study item
- Periodic "game" competition using Trivial Pursuit, Jeopardy, or similar game formats to make the session more enjoyable
- Monthly open book study sheets on rotating topics
- Medical Director led discussions or forums

The goal is two-fold. First, get the personnel to open and re-familiarize themselves with the protocols. Second, to provide documentation and compliance of the same.

Regardless of the method, the medical director is responsible for defining the content and approving the methodology of assessment. The medical director may defer to the administration and others versed in adult learning methodology to find the right mix of instruction and measurement for the particular agency's personnel mix.

Through such a process, agencies will find that a small number of personnel will fail to demonstrate the level of proficiency defined by the medical director. A remediation process, complete with an improvement timeline, must be defined in policy. To be fair to the provider and to insure that that the provider meets expectation, reassessment must have be substantively different than original evaluation.

Decisions on re-evaluating the entire span of content or focusing on the area requiring improvement are the discretion of the medical director or designee.

Evidence of ongoing surveillance of field implementation of the agency protocols is essential. Ongoing review as previously described merely demonstrates that the protocols were reviewed by the medical director and that personnel were exposed to the material. The final piece of the protocol puzzle is ongoing surveillance of the protocols in the actions of the field personnel. Again, many methods are available to an agency to fulfill this goal.

Typically, surveillance falls into two broad categories:

Direct observation
Retrospective review

Direct observation can be accomplished by peer review, field training officers, the medical director, or others charged with performing field evaluations. Some agencies prefer that the evaluator ride as a third participant on the ambulance so that they can view the call from beginning to end. Others rely on a third party arriving on scene and performing the evaluation. Still others, have an appropriate party meet the crew at the receiving facility or rely on hospital staff to review the progress and initial outcome of the patient. Ideally, an agency would incorporate all three aspects into the evaluation process. Regardless, an agency must be able to demonstrate some form of practical protocol compliance.

For some agencies on scene evaluation is an unrealistic expectation. Barriers, such as financial constraints, low call volume, expansive territory, or an unreasonably small or large staff, might necessitate an alternative method of observation. In these cases, an agency might look to realism training or scene simulations as a legitimate method of measuring "real world" protocol compliance.

Retrospective analysis is most often accomplished by auditing run records. While this may be the most time efficient method of assessing protocol compliance, it is also the most biased. First, auditing run records makes the giant assumption that the record accurately reflects the actions and timeline of the actual call. At a minimum, the run record is an annotated description of the call's events, devoid of contextual reference. Agencies must promote accurate and thorough documentation by their field crews.

Agencies forced to rely on retrospective analysis, should define an a minimum data set of objective criteria in which to evaluate protocol compliance.

Although not condoned, it is not unreasonable to believe that the average pre-hospital provider paints the best picture possible of the call just completed. Often, real time data is lost and the times documented are an estimate at best.

In addition, retrospective analysis does not have the benefit of context. Minor deviations or protocol interpretations may seem less defensible when considered in an air-conditioned room, out of the rain, or away from screaming bystanders. Many times, making decisions with the information available at the time cannot be compared to those made after more complete, thoughtful deliberation. After all, the majority of "Monday morning quarterbacks" end the season undefeated.

Again, regardless of the method, the agency must demonstrate an effective method of providing actual compliance with the written protocols. The agency must develop a policy or procedure for managing protocol deviations as well.

Required:

Protocol Review.

- Must be ongoing, updated against current literature and must be executed/approved by the Medical Director.

Knowledge assessment.

- A protocol assessment that reflects the ongoing protocol review.
- The criteria will be jointly defined by the Medical Director and by the provider's administration.
- The assessment's structure and content must be defined/approved by the Medical Director.
- A defined remediation process with established timelines.
- The reassessment must substantially different than the original, but must assess the identified weaknesses.

- A defined re-education process & timeline that clearly identifies the criteria for successful completion and for revocation of credentials.

Ongoing surveillance.

- Evidence of ongoing management and surveillance of the organization's protocols.
- Methodology for identifying protocol "fall-outs"
- Procedure for evaluating and managing protocol "fall-outs"

Credentialing Process

Formal credentialing of healthcare providers has its origins in hospital compliance with the standards that later became the Joint Commission on Accreditation of Hospital Organizations (JACHO). Originally focused solely on physicians, in recent years it has expanded to include a variety of professionals providing patient care. The application of credentialing concepts to the EMS setting is long overdue.

Accreditation and empowerment to credential began in 1912 at Third Clinical Congress of Surgeons of North America. A proposal for hospital standards ultimately led to the JCAHO.

Joint Commission definition of credentialing:

> *Process of obtaining, verifying, and assessing the qualifications of a health care practitioner to provide patient care services in or for a health care organization.*

The primary purpose of credentialing is to ensure that any individual who wishes to provide patient care is qualified and competent to exercise the clinical privileges granted.

Credentialing is a process of differentiating membership on the staff (or employment) from specific clinical privileges. It seems like such a simple issue, but is actually quite complex.

The Medical Director is charged with the responsibility for:

- The appropriateness of pre-hospital care provided under his or her direction.
- Approving the level of pre-hospital care rendered by each provider regardless of the level of state certification.
- Establish and monitor compliance with field performance guidelines.
- Establish and monitor compliance with training guidelines that meet or exceed the minimum standards set forth in TDSHS regulations.
- Suspend a certified EMS individual from medical care duties for due cause.

The credentialing process is specific to the medical director. It is separate from other issues:

General employment (employer)
General certification or licensing (Texas Department of State Health Services)
Operations and Management (Chief or CEO)

In most systems, the medical director has an area of authority over patient care, including defining and controlling each provider's clinical privileges. This provides local decision-making and accountability for the medical director. Separate from certification and licensure which is a state minimum, credentialing allows a way to raise the bar when communities wish to do so.

While the credentialing process is labor intensive, it provides superior protection to medical directors and agencies against malpractice and administrative liability.

Required:

- All required characteristics listed in 1. (Initial Assessment of New Field Care Providers), 2. (Preceptorship/Internship), 3. (Required Professional Development), and 4. (Protocol/Standards of Care Management)
- Documentation of a system that requires each patient care provider to demonstrate skills appropriate for their level of training to the satisfaction of the medical director.
- An established process for reintegration (i.e. bringing a individual from administration back to the field)
- An established policy for administrative personnel to remain field credentialed
- Bi-annual (at a minimum) field evaluation by a Field Training Officer (or like position). Evaluation will consist of demonstration of patient care skills, scene control skills, conduct becoming of an EMS provider, etc.
- ONLY THOSE INDIVIDUALS CREDENTIALLED BY THE MEDICAL DIRECTOR WLL BE ELIGIBLE FOR AUTOMATIC RECERTIFICATION.

Quality Improvement

For centuries, humankind has striven to improve upon the status quo. There has been a continuous process of examining present day performance in an attempt to improve understanding, efficiency, and outcomes.

Quality Improvement is an ongoing system that includes retrospective review, concurrent review, and prospective forecasting of clinical care. Quality Improvement also combines a circular response through measurement of identified goals and sentinel events, identifying opportunities for improvement, re-education, process redesign, and measurement of corrective efforts. It is the process of taking a collective look in the mirror, and discovering what parts of the service we want to improve? Should we find that we are satisfied with the reflection, we need to be able to explain why

Requirements for CCMP Approval

The ultimate goal of Quality Improvement focuses on enhancing the provider's ability to provide patient care and excellent customer service while continuing to be clinically sophisticated and fiscally responsible.

CQI, QI, QA, TQM - it has been called many names over the years. Perhaps it is better described by its characteristics.

- Function of good management
- Never-ending process
- Measure of excellence
- Includes the perception of the community
- Oriented towards problem solving

The ultimate goal focuses on providing better care and service tomorrow than we are capable of today.

Information discovered as a result of a legitimate quality improvement program is protected from discovery in administrative hearings and civil litigation. The Texas Department of State Health Services, the legislature, and the Courts recognize that this protection is necessary so that employees and volunteers are encouraged to bring items of concern in matters of policy, protocol, or treatment to the attention of the QI manager.

Quality Improvement is a non-punitive process designed to provide opportunities for personal and/or professional growth for the individual and agency. In order to be successful, the entire firm must embrace the philosophy. This may be a difficult concept for some to understand. One's past experience may indicate that it is much easier to punish than to teach. Because of this, many staff members doubt the sincerity of the commitment to grow, and instead, fear punishment.

Disciplinary action is a last resort for any quality improvement program. Disciplinary action should be reserved for extreme instances of repeated violations of protocol or policy despite remediation efforts, the breach of confidentiality, or refusal to participate in the quality improvement program.
Participation of the medical director is essential. As Medical Director, responsibility and liability beings when the call is received. The medical director is responsible for every phase of the emergency response from the dispatch information collection and pre-arrival instructions to the timely arrival of the EMS unit, and the actions of the personnel until the release of the patient. A QI program serves to provide a monitoring mechanism for patient care, response times, equipment and apparatus, and patient outcomes. QI provides a platform from which to direct continuing education, allowing CE to be tailored to the specific needs of the service and it provides a consistent and even handed measure to determine problem trends that may require intervention by the medical director.

It is the system administrator's duty to ensure the viability of the quality improvement program. Open mindedness cannot be overemphasized. The nature of quality improvement may be threatening to the administration. No one enjoys being scrutinized.

Thus, the role of the administration is to make the process non-threatening so that looking in the mirror is a less painful process.

The program should examine the administrative process as well. By allowing this review, especially an upward review in which the employees are allowed to participate, the manager sets an example. In demonstrating this commitment to quality improvement, the manager encourages the average medic to participate openly in self-examination and accept constructive criticism when warranted.

Staff members must be given the opportunity to actively participate in the program. Peer review auditing and upward evaluation of operations provide the staff member with avenues to effect positive change and may serve to improve morale.

In order for the process to be efficient, a limited number of people should be involved at any one time. This group of people should include representation of the agency from all levels. The medical director and the administrator should remain active in the process, but other members should be rotated so that anyone willing to participate has the opportunity to do so.

Other potential participants in the Quality Improvement Committee include:

- Medical Director
- Clinical Manager
- Field Representative
- Field Supervisor Representative
- Hospital ER Representative
- EPAC Representative
- Professional Educator
- Administrative Assistant

Quality improvement is a problem solving process. It is comprised of five familiar components that closely mirror the problem solving process used in patient care and other daily activities.

The components are:

- Assessment
- Goal setting
- Plan development
- Intervention
- Progress evaluation

Functionally, quality improvement can be subdivided into three areas;

1. Exploration of ongoing daily activities.
2. Response to sentinel events.
3. Monitoring and evaluation.

Exploration of ongoing daily activities

Ongoing daily activities should be designed to examine a particular aspect of the agency and look for ways of improving performance, or documenting superior performance. The list of possible parameters is limitless. The size of the service and the available resources may determine how many and how often these areas can be evaluated.

The following is a list of clinical topics that a committee might want to consider:

- Medical direction - How does your medical director participate in the service's operation? How often do medical control and the field medic disagree? What is your plan for medical direction during a communications failure? What are your provisions for medical direction during a mass casualty incident?
- Protocol development and maintenance - Do your protocols reflect updates in technology and medical knowledge? What drives changes in your standing orders? Do your personnel feel a sense of ownership in the protocols? Are receiving hospitals familiar with your protocols?
- Complete assessment - How do you know that your personnel demonstrate thorough patient assessments across all types of patients? What actions have you taken to improve their assessment skills?
- Protocol adherence - How do you know that your personnel correlate assessment findings to the appropriate clinical impression? Are the protocols followed?
- Transport destination - Are patients routed to specific facilities dependent on their presenting problem and stability? Do you take advantage of modes of transport and facilities with specialized care capabilities?
- Legible, complete run records - Can you demonstrate quality assessment and treatment based on the content of the average run record?
- Correlation of assessment, treatment, and outcome - What is your process of patient outcome follow-up? How often are your medics on target with their patient assessment? What happens when a discrepancy is found?
- Recordkeeping - How often are run records matched to call records? How often are you missing run records? Do you have up-to-date credentials on your personnel? Are your controlled substances policies complete? Are injuries and exposures tracked and maintained? Are sensitive documents secured?

For the purposes of the Comprehensive Clinical Management Program, QI is focused on clinically related topics. Other aspects of the organization may be considered for review as well. The following is a list of possible categories and related topics that may be explored through a quality improvement process. Under each topic, questions are listed to give direction on how to examine that individual area. This is certainly not an all-inclusive listing, merely a set of examples.

Administration

- Day to day operations - Is administration accessible? Are administrative procedures documented and easily referenced? Are you properly insured?

- Long term success of the firm - Is the company financially sound? Can you meet the anticipated community demands in the coming years? Does the community have input into the future of the firm?

Finance/Budget

- Adequate to meet daily needs - Are the bills being paid in a timely manner? Can you meet the demands of a sudden increase in call volume?
- Future development - Are funds being set aside for routine replacement of capital equipment and future expansion? What is the credit worthiness of the firm?
- Contingency funds - Are funding sources available for unexpected disasters?
- Reimbursement rates and effectiveness - Is your billing system efficient? Are you complying with federal and state rules and regulations? Do you have alternative funding strategies?
- Purchase review - Who is allowed to make purchases? Are there checks and balances on major purchases? Are the purchases necessary and reasonable?
- Periodic financial audit - Do you employ an independent auditor to review the financial books and make recommendation? What do you do with the recommendations?

Personnel/Staffing

- Minimum state certification and staffing requirements - Do you fulfill the requirements of your provider license?
- Appropriate number of personnel at all times - How does your staffing plan meet the requirement of your call volume?
- Appropriate hours worked per person - Do you limit consecutive hours worked? Do you meet federal and state regulations concerning labor?
- Performance appraisal - How do you evaluate staff members? How often and what feedback do they receive? How do staff members tie evaluation to performance growth?
- Unit availability - How often is an ambulance available when a call comes in? How often do you rely on mutual aid for normal call volume?
- Contingency plan for unusual events - What is your plan for expected large gatherings? Do you address seasonal demands? Do you have an emergency call up system during times of system stress? What is the mutual aid capability of the area? What mutual aid do you have to offer the region?
- Debriefing and Defusing - Do you participate in a critical stress management system? Do you have the ability to immediately relieve exposed staff?

Materials management

- Appropriate equipment - Are the tools available for the staff to do their job? How do you assess the need for new equipment?
- Appropriate disposable supplies - Do you run out of supplies? How do you remedy that?
- Procurement and distribution plan - How do you purchase supplies - crisis versus plan ahead? How do you balance low bid versus most appropriate?

- Maintenance of equipment - What do you when critical equipment fails? How do you prevent routine failure? What is your equipment replacement plan?
- Resource plan for MCI - When the "big one" occurs, what resources do you have and where does it come from? How do you get it to the scene? Do you have a recovery system?

Fleet Management

- Failures/Down time - How often is a unit down on unanticipated failures? Are repairs completed in an acceptable time period?
- Longevity of the fleet - When do you replace trucks? Do you remount? Which is more cost effective - replacement or continued maintenance?
- Preventive maintenance - Is there a plan to avoid predictable failures? Is the plan convenient and efficient for the personnel? How often is it reviewed?
- Acute maintenance - What happens when one truck goes down? What happens when multiple trucks go down? What is the backup plan for coverage in times of catastrophic failure? Is the maintenance plan available 24 hours a day, seven days a week?

Response Issues

- Response times - Have you established acceptable response parameters for your community? Do they meet the community's expectations? Are they comparable to similar agencyies in similar environments? How often are you outside the parameters?
- Dispatch - Are calls handled efficiently and appropriately by the dispatch system?
- Out of chute - How quickly is the unit enroute after the time of call? Are ways available to decrease that time?
- Response to scene - Are mechanisms in place to assist personnel in choosing time efficient routes and to avoid delays?
- On scene time - Do you different acceptable scene times for different types of patients, i.e. trauma, cardiac, stroke, general medical?
- Return to service - Do your personnel make efficient use of time after the call?

Customer Relations

- Is the community happy with you? Do you survey the community and/or patient populations? What are your public opinion strengths? What aspect are they unhappy about? How do you manage complaints? Does the community feel your agency is indispensable?
- Receiving centers - What is your mechanism for obtaining feedback from the hospitals?
- Public education - What do you do to improve the community's health?
- Public relations events - What do you do to enhance the agency's recognition in the community?
- Marketing - Does the community know who you are?

Education

- Maintenance of a minimum competency - Can you define minimum competency for your agency? Are your personnel capable of managing the population of patients to which they are routinely exposed?
- Periodic measurement for a minimum competency - What instrument do you use to gauge competency? Does everyone meet this level?
- Remediation for competency deficiency - What efforts are made to remediate problem areas?
- Initial training opportunities - Do you offer courses to create or advance personnel for your agency? Do you participate in the development of curriculum for the area training facility?
- Mentorship of new staff members and students - Is a program in place to groom students and new staff? Is there consistency in the mentor relationship?
- Enhanced learning opportunities - Are your personnel encouraged to continue learning beyond the entry level? Is knowledge obtainment a professional and/or personal goal for your personnel?

Response to sentinel events

Emergent problems (sentinel events) may arise in any of the categories and topics listed above. The most noticeable tend to fall in the clinical arena. These problems are the ones that tend to get everyone's attention, spread quickly through the agency, and cause each individual to comment on how they would have handled the situation differently. They are also the problems that are most likely to cause spontaneous, adverse reactions from supervisors, managers, and the medical director.

The first question one must ask when faced with such a situation, clinical or not, is what was the root cause of the decisions and/or actions that were made. Was it due to malice or ignorance? The cause should determine whether the corrective action should be handled via operations (discipline) versus quality improvement (growth).

Assuming you find the error was made due to ignorance, it is the agency's obligation to prevent the error and similar errors in the future.

Various mechanisms can be instituted to find problems. An EMS provider should provide formal methods of data analysis. Other more informal methods such as the "grapevine" can also be used. The most common method of finding problems is the "grapevine." Some services require complaints and/or concerns to be in writing. Because people are often reluctant to "document" concerns against a peer, quality improvement requires that hearsay concerns be investigated.

All aspects of the problem must be investigated. How and why the problem occurred should be the focus. Each individual involved should be asked about their observations and opinions of the incident as it occurred, and retrospectively, what they would do differently.

Given time and due consideration, rather than immediate reaction to a given problem, the QI process may discover extenuating circumstances which may justify the decisions made, or point to a simple education/training solution, rather than a punitive solution based on reflex.

You need to know how often this situation presents itself. In addition, an attempt should be made to assess how likely others have been and/or would be to make the same decisions and actions.

Resolution and prevention may take many forms. Most common is some form of education to bring all personnel to a higher minimum competency level. Often, re-engineering of the work place or effort may improve efficiency or avoid future problems. Protocols may be revised or clarified. Likewise, policies or procedures may be developed or re-written. Administrative or clinical controls may be implemented to accommodate the new information received during the process.

Monitoring and Evaluation

Monitoring and evaluation involves continuously collecting data about important aspects of care/service, analyzing the data and recommending needed steps to improve based up on the analysis. The lingering question for EMS is "how to carry out monitoring and evaluation?"

A sample, well proven, 10-step Monitoring and Evaluation process.

1. Assign responsibility
2. Delineate scope of care
3. Identify important aspect of care
4. Identify indicators
5. Establish thresholds for evaluation
6. Collect and organize data
7. Evaluate care
8. Take actions to improve care
9. Assess effectiveness of action
10. Communicate findings

Some example indicators to assess may include:

- Response times
- Endotracheal intubation success
- Cardiac arrest survival
- Pain management
- Unit hour utilization
- Controlled substance use

The strengths of using a monitoring and evaluation system include that it is a viable method of performance improvement, it is a systematic approach that guides staff through this difficult and time consuming event. It emphasizes the importance of collecting date - the lynch pin of improvement efforts - related to valid and reliable indicators.

It also emphasizes linking improvement actions to that data so that changes are made based on solid information rather than intuition.

It also helps organizations to set priorities for improvement by first cataloging the range of services provided and then giving priorities to the most important aspect – those that are high risk/low volume (less than 30 per period), high risk/high volume(greater than 30 per period), and/or problem prone. Agencies should consider building a matrix of these situations to focus their monitoring and evaluation system.

With the advent of electronic patient care records, chart review may take many forms beyond reading a written record. Agencies should be able to demonstrate an appropriate method of chart review given their resources and abilities. Random audits of at least 5% of high risk/high volume or 100% of high risk/low volume should be included. Agencies should be able to demonstrate their approach to reviewing particular problem prone situations.

An organized method of obtaining direct observation through field evaluations and feedback from hospital personnel should also be considered.

Monitoring and evaluation must be executed at the organization level, not at the department level, as this tends to segregate improvement efforts and leads to duplication of effort.

This entire approach focuses on understanding and meeting the needs and expectations of "customers." Thus, we must measure their satisfaction. It focused on the improving processes rather than targeting individuals: it emphasizes leadership's commitment to improvement.

A small number of steps can be summarized for implementation of a complete monitoring and evaluation program:

Set priorities for measurement
Identify worthwhile indicators
Teach staff how data for the indicators can be collected
Encourage staff to study data

Quality improvement is a dynamic process that is used to not only improve the service to the community, but to prove the value of your agency to the community. Excellence can only be achieved with active participation in a process that explores daily activities. Activities that demonstrate excellence should be documented and emphasized. Those

needing improvement must be recognized and adapted. In the end, the public will receive a higher level of care in a more efficient manner.

Required:

- A five component problem solving process with the following components:
    1. Assessment
    2. Goal Setting
    3. Plan Development
    4. Intervention
    5. Progress Evaluation
- There shall be an assessment of the provider's daily activities.
- There shall be a definition for sentinel event and "near-misses."
- There shall be an assessment of the provider's response to emergency problems (sentinel events). (equipment failures, supply deficiencies, medication errors, fleet failures, etc.)
- There shall be an assessment of the following categories:
    1. Personnel/Staffing
    2. Response Fractiles and Averaging with correct statistical monitoring.
    3. Clinical Care (Skills performance, Protocol Selection, Patient Assessment, etc.)
    4. Customer Relations program.
    5. Education
    6. Administrative/operational policies
    - Agencies shall have measurable clinical indicators that are regularly assessed for compliance with established thresholds.
    - An appropriate, organized and prioritized monitoring and evaluation system for compliance with documentation standards, correct protocol selection, and appropriate patient care.
    - An annual cardiac arrest survival analysis in accordance with Utstein Criteria and reporting to the TDSHS Regional office.
    - Individual performance of skills (5 minimum) will be tracked for each patient care provider.
    - A system in place to monitor customer satisfaction and conflict resolution with the system (Patients and Hospital Personnel are considered customers)

Service and Performance Inquiry System

Customers (i.e. patients, family members, facility representatives, first responders, tax payers, etc.) contact their local EMS agency with a variety of questions and concerns, complaints and/or compliments. EMS agencies must be responsive these issues, insuring that the public's interest is addressed.

Tracking and monitoring the substance of such inquiries will aid an agency in better meeting the needs of its customer base and/or constituency. Informal and formal complaints provide the agency with insight into areas of potential improvement.

Questions and comments may demonstrate a need for greater public awareness or advertising on a particular topic or issue. Compliments and other expressions of gratitude provide the agency and its employees with a glimpse of the good work that is done in the community. Regardless of its motivation or content, customer feedback is a valuable tool for system improvement.

Examples

- The local nursing home complains that a paramedic handles a patiently roughly
- A citizen reports that an ambulance was speeding on the freeway
- A mother calls to report how much she appreciated the Think Child Safety program
- The trauma surgeon reports a good patient outcome because the crew rapidly assessed the patient
- You receive a card thanking the crew for their timely response and quality care
- A caller thinks you should be doing more to combat drunk driving
- Through your website, a citizen e-mails a request asking why you bill for services when you they pay taxes to support the agency
- A fire chief feels that response times are slipping

Constructing and adhering to a service inquiry protocol is an essential step in tracking and analyzing customer service inquiries. Such a protocol insures that the customer's concern is documented, investigated, and appropriate steps taken to maintain or enhance the system's performance. This includes complaints, comments, and compliments.

Components of a Service Inquiry Protocol:

Intake

As noted in the examples above, initial contact with the agency may occur through a variety of channels. An agency should establish and advertise a variety of means for the public to contact the agency. Such variety encourages public comment and enhances the likelihood that any given citizen will correspond with the agency.

Examples of intake opportunities include:

- Phone
- Address
- Email
- Website
- Billing department
- Customer satisfaction survey
- Dedicated comment field on invoices
- Suggestion boxes in local ER's
- Customer Inquiry Hotline

The person or collection device receiving the initial contact should attempt to record the customers name, contact number, and general nature of the inquiry. Additional information, such as specific call data, can be very helpful.

Policy
The agency must establish and maintain a service inquiry policy/procedure. The policy should define what constitutes an inquiry.

The policy should address what should be done when a complaint, concern, or compliment is received by an interested party (another professional in the field, patient, citizen, co-worker, etc.). The policy shall address what information should be gathered, appropriate consultation of supervisors, the timely implementation of a resolution and the appropriate type of feedback to the individuals involved in the incident. Each of these areas is further discussed below.

Documentation
Regardless of the method of initial contact, all inquiries should be routed to central point to be recorded in a logbook and forwarded to the appropriate party for further information gathering.

Investigation
(The term "investigation" should be implied to mean appropriate follow-up on both positive and negative customer service inquires. If does not necessarily refer to a potential disciplinary situation.)

It is recommended that the lead investigator should make contact with the customer. This conveys a since of importance to the customer, letting them know that their complaint, concern, or compliment is important to the agency. During this contact, the investigator can get more specific information regarding the event or issue.

In situations involving customer complaints, the investigator should inform the customer of the complaint investigation process, a timeline for completion, and inquire as the feedback that the customer expects. Often customer do not want feedback, they merely want to make you aware of a situation. If feedback is requested, the investigator should inform the customer that the agency cannot discuss potential disciplinary action, but will be happy to inform them of the general outcome of the investigation and resolution of the complaint.

Knowing that there are two sides of every story, it is imperative that the agency personnel involved have an opportunity to relate their version of the event. Even in complimentary cases, the personnel may be able to report actions or strategies they initiated that caused the customer to be especially grateful. Certainly, if a particular crew receives an extraordinary amount of positive customer appreciation, the agency should observe the crew's actions and attempt to seed similar behavior in other personnel.

Both customer and personnel accounts of the event should be documented by the investigator. Written accounts by the personnel may be helpful as well, especially if disciplinary action is anticipated.

The investigator should document what they believe to be chain of events based on the information obtained from all pertinent parties.

Referral
In some cases, the investigator will find it necessary to include other individuals in the investigation and decision-making process. The agency administrator, medical director, human resources coordinator and immediate supervisors are likely to be advised of the situation or called upon to craft and prudent outcome.

Closure
At the conclusion of the investigation, feedback should be given to all parties involved. For praise situations, this might include providing a copy of the appreciation letters to the employee and their personnel file.

In quality improvement and/or disciplinary situations, personnel should be coached in method to avoid similar situations in the future. In some cases, case studies can be developed and published so that the entire agency can benefit from what might have been an unusual situation.

Follow-up with the customer will often provide a since of closure and satisfaction. Customers expect that service will not always be delivered at peak efficiency. They know that individuals have bad days. In most cases, what really matters is how an agency responds to their concerns. Demonstrating that the agency listened and responded in an appropriate manner may be all that is necessary to convert a dissatisfied complainer into a completely satisfied customer.

Record Keeping
One of the first steps in the service inquiry protocol should be the recording of the complaint, concern or compliment in some form of inquiry log. The person maintaining the log should be charged with insuring that inquiries are handled in an appropriate time frame and returned for filing. Should this person recognize that a particular inquiry has not been closed, this should be reported to a person of sufficient authority who can urge the process to a resolution.

To be anything more than a complaint resolution process, an agency must maintain inquiry records and periodically complete a trending analysis. The importance of such a process has been previously discussed, but its importance cannot be under-emphasized.

Required:

- A centralized location and/or process for receiving inquiries.
- An established triage process to direct inquiry resolution along potential disciplinary or Quality Improvement avenues
- A process that ensures the confidentiality of all complaints and investigations.
- A method to track/trend the nature of each inquiry and feed data into the Quality Improvement program.

On-Going Corrective Action

No Quality Improvement or Service Inquiry system could ever be complete without on-going corrective action. The whole purpose of the improvement cycle is to ensure that problem areas are corrected and that the corrections can be documented.

By documenting any on-going corrective action, a provider can ensure that the Quality Improvement and Formal Complaint Tracking Process are directing its improvement activities.

Some examples of on-going corrective action are: education for personnel with an identified deficiency, re-engineering of the work place to improve efficiency, revision of protocols for clarification and policies or procedures developed or re-written to address a new problem or issue.

All CCMP providers must document problems and report the action taken to correct these problems. This documentation must be used to create a reporting structure that will allow for analysis of trends and statistics and still protect the confidentiality of the documents being studied.

This reporting system must also include a public performance report. As "public servants," EMS providers have a responsibility to report their strengths, weaknesses and corrective actions to the citizens that they serve. Many local governments will have performance criteria by which to judge one's outcomes. A CCMP provider must set its minimum standards at or above the local expectations.

Required:

- At least annual documentation of the results of the Quality Improvement efforts and Formal Inquiry Tracking Process. Areas of the program determined to be in need of improvement will be identified, objectives developed and implemented, reassessed, and reported.
- Efforts to resolve and reassess identified individual deficiencies will be documented.
- A developed reporting structure that includes a public performance report.
- Privilege/confidentiality policies and methods.

Established Committees

While the medical director is ultimately responsible for the quality of pre-hospital care provided under his/her license, quality care is dependent on more than just the input of the medical director. Every facet of an agency's operation can and does impact the patient's overall therapeutic experience. Many of these areas are far beyond the scope of the medical director's knowledge, skill, experience, or interest.

Even within the clinical arena, those delivering the care have a vested interest in the development of the agency's therapeutic personality. Experience tells us that those employees long for involvement as it increases a sense of personal value and contribution to the agency. A positive side effect of such involvement is the fact that employee involvement fosters ownership in the decisions and greater compliance and satisfaction with the process. In situations where a plan obtains limited success, the inclusion of a variety of personnel in the planning and implementation process dilutes the negative impact of the failed operation on any one person.

Every agency is composed of personnel who have opinions on how to get the job done (just ask the personnel). Personnel have a unique vantage point within the agency and many times have a wealth of knowledge and ideas that could enhance area of the operation that impact the provision of clinical care.

Traditionally, we think of committees as small working groups that exist into perpetuity. Over time, it is common for committees to stagnate and become counterproductive. This does not necessary need to be the case. In fact, it may be beneficial for such groups to have a limited scope and a defined lifespan.

A task force or working group can be formed to explore a particular topic, formulate a report and implement the result. Once complete, the group is disbanded and new group is composed to tackle the next opportunity. Such an approach maximizes the opportunity for individual participation and tends to promote a greater degree of enthusiasm within the organization.

Regardless of the approach, there are a limitless number of areas for personnel to contribute. Listed below are a variety of committee examples that an agency should consider. Just as the Incident Command System can be consolidated or expanded in scope dependent on the demands of the particular incident, so too can the committee options listed below dependent on the size and nature of the agency.

Motor Vehicle Collision/Driving Management
The operation of an emergency vehicle offers heightened liability to the EMS agency beyond that experienced in other clinical settings. The establishment of specific driving policies and procedures to monitor driver performance are essential to limit an agency's liability. Investigative procedures and accident review must also be addressed. Agencies should promote safe driving practices that enhance the overall comfort of the

transportation experience. Rough, erratic, or dangerous driving will detract from quality patient care.

Safety Review
Workplace injuries and exposures pose a significant threat to physical health pre-hospital providers and to the financial health of the agency. A safety committee is designed to review workplace practices and offer suggestion and/or policies that promote a safer work environment. Specific attention should be dedicated to the proactive review of infection control methods and techniques.

Quality Improvement Committee
In most agencies, the QI process utilizes a committee to review clinical care and recommend improvement strategies.

Education Committee
In conjunction with the Quality Improvement process, the education committee recommends, develops, and implements professional development programs. Many of these will be clinically focused to meet proactive or retrospective clinical QI needs. However, other aspects of the QI process, including the Service Inquiry Protocol, may identify issues not traditionally classified as clinical, but important to patient's overall outcome. Examples might include such things as preceptor training or conflict resolution skills.

EMD/Medical Communications Committee
Quality clinical care begins when the phone rings in the dispatch center. The EMD committee should be charged with monitoring compliance with the EMD protocols, delivery of pre-arrival instructions, and phone etiquette. In addition, the committee should explore the correlation between the EMD determinants, paramedic assessment, and hospital discharge diagnosis.

Public Information and Education Committee
Outreach programs designed to raise awareness and promote the health and safety of the community are an important part of many EMS agencies. The responsibility for assessing the need and meeting the demand falls to a Public Information and Education Committee.

Product Evaluation Committee
The delivery of pre-hospital care is advancing at a pace equivalent to the health care industry as a whole. Because of this, a tremendous number of new products and supplies are being introduced each year. Agencies owe it to their constituency, personnel, and patients to critically review these potential advancements for their efficacy and utility, not to mention their financial impact.

Protocol Development and Review Committees
Many medical directors have found it near impossible to research every advancement and alteration in clinical practice across the broad horizon of pre-hospital care. In general,

Requirements for CCMP Approval

EMS personnel are extremely interested in remaining current in EMS clinical issues. Consequently, they are often eager to participate in committee work in specific areas of clinical interest. An agency might establish small work groups focused on areas such as cardiac, respiratory, trauma, or pediatrics.

Customer Satisfaction Committee
Agencies have a vested interest customer satisfaction. Meeting the expectations of patients and the constituency at large is essential for the long-term success of an agency. Failure to address satisfaction issues might lead to public discord, hostility and eventually threats of changing who provides service to a particular population or facility.

Agencies must take advantage of the resources found in their employee roster. The intellectual experience of sharing ideas through a collaborative environment will promote quality patient care and a more productive workplace.

Required:

- Committee(s): That identify, plan, implement and evaluate opportunities to improve performance in all areas of the EMS system. Some examples are:
  - Motor vehicle collision/driving management
  - Protocol development
  - Safety review including exposures, lifting, immunizations, etc.
  - Education committee (to develop content of CE)
  - Quality Improvement committee
  - EMD/medical communications committee
  - Medication tracking/use committee
  - Public information and education committee
  - Other committees as determined by local authorities

The agencies may include participation in outside committees as well (RAC, COG, etc)

Medical Director Accreditation

No Comprehensive Clinical Management Program can possibly succeed without the dedication and support of an active medical director. Although the amount of time needed may vary depending upon the provider, the medical director for a CCMP must be prepared to spend several hours to several days a week working with the provider and its staff.

The medical director is responsible for the overall clinical aspects of the provider and is therefore ultimately responsible for all aspects of the CCMP. In order to qualify as a CCMP medical director, each physician:

Required:
Must be:

- a physician licensed to practice in Texas and shall be registered as an EMS medical director with the Texas Department of State Health Services;
- familiar with the design and operation of EMS systems;
- experienced in emergency care of acutely ill or injured patients;
- actively involved in:
    - the emergency management of acutely ill and/or injured patients;
    - the training and/or continuing education of EMS personnel, under his or her direct supervision, at their respective levels of certification;
    - the medical audit, review, and critique of the performance of EMS personnel under his or her direct supervision;
    - the administrative and legislative environments affecting regional and/or state prehospital EMS organizations;
- knowledgeable about local multi-casualty plans;
- familiar with dispatch and communications operations of prehospital emergency units; and
- knowledgeable about laws and regulations affecting local, regional, and state EMS operations.

And, shall be responsible to:

- approve the level of prehospital care that may be rendered locally by each of the EMS personnel employed by and/or volunteering with the EMS under the medical director's supervision, regardless of the level of state certification, before the certificant is permitted to provide such care to the public;
- establish and monitor compliance with field performance guidelines for EMS personnel;
- establish and monitor compliance with training guidelines which meet or exceed the minimum standards set forth in the Texas Department of State Health Services EMS certification regulations;
- develop, implement, and revise protocols and/or standing delegation orders, if appropriate, governing prehospital care and medical aspects of patient triage,

transport, transfer, dispatch, extrication, rescue, and radio-telephone-telemetry communication by the EMS;
- direct an effective system audit and quality assurance program;
- determine standards and objectives for all medically related aspects of operation of the EMS including the inspection, evaluation, and approval of the system's performance specifications;
- function as the primary liaison between the EMS administration and the local medical community, ascertaining and being responsive to the needs of each;
- develop a letter or agreement or contract between the medical director(s) and the EMS administration outlining the specific responsibilities and authority of each. The agreement should describe the process or procedure by which a medical director may withdraw responsibility for EMS personnel for noncompliance with the Emergency Medical Service Act, the Health and Safety Code, Chapter 773, the rules adopted in this chapter, and/or accepted medical standards;
- take or recommend appropriate remedial or corrective measures for EMS personnel, in conjunction with local EMS administration, which may include, but are not limited to, counseling, retraining, testing, probation, and/or field preceptorship;
- suspend a certified EMS individual from medical care duties for due cause pending review and evaluation;
- establish the circumstances under which a patient might not be transported;
- establish the circumstances under which a patient may be transported against his or her will in accordance with state law, including approval of appropriate procedures, forms, and a review process;
- establish criteria for selection of a patient's destination; and
- develop and implement a comprehensive mechanism for management of patient care incidents, including patient complaints, allegations of substandard care, and deviations from established protocols and patient care standards.
- be an active participant in the local Regional Advisory Committee

Desired:
- Have completed the National Association of EMS Physicians Medical Director Training Seminar (or Texas College of Emergency Physicians Course when available)
- Membership in NAEMSP
- Attend the Texas College of Emergency Physicians Annual EMS Physicians Seminar and/or EMS State of the Science
- Membership in the EMS Physicians of Texas
- Active participation in State and/or RAC Medical Director committees

Texas Department of State Health Services
Comprehensive Clinical Management Program
Scoring Criteria

1) Initial Assessment of New Care Providers.	Acceptable	Deficient	N/A
Required:			
Written assessment of didactic knowledge • This knowledge evaluation should be specific to the certification level of the applicant and focus on clinical information. • Agencies should NOT rely on the Texas Department of State Health Services or National Registry examination as their written assessment tool. • Agencies are encouraged to use a numeric scoring system to allow the agency and candidates to easily assess the level of preparedness for the candidate. The use of non-specific Pass/Fail criteria is discouraged			
Situation-based practical assessment			
Background Investigation • This portion of the process should include verification of TDSHS certification, and research into the candidate's criminal history, work history, driving record, and administrative history with the Bureau of Emergency Management.			
Desired:			
Practical Skill assessment • In addition to the situation-based assessment.			
Personality profiles			
2) Preceptor/Internship			
Required:			
Defined preceptor selection process. • The Medical Director with consultation of other appropriate parties must select appropriate preceptors. The medical director must approve the development and training of preceptors.			
Internship proficiency criteria. • Interns will ride as 3rd person until the preceptor establishes that the intern has met pre-established competencies as defined by the Medical Director • Interns will ride as a 2nd person until preceptor establishes that the intern meets the prerequisites for independent duty as determined by the Medical Director. • In addition to the preceptor, the intern must demonstrate proficiency to another evaluator. • A process that allows the intern to evaluate the internship program.			
Desired:			
A representative sample of call types (minimum number to be determined by the Medical Director) of critically ill adult patients, pediatric patients and trauma patients will be correctly cared for by the intern prior to release from internship.			

3) Required Professional Development			
Required:			
Professional development hours. • 24 hours per year for EMT-P's • 20 hours per year for EMT-I's • 16 hours per year for EMT's • 10 hours per year for ECA's • Other EMS personnel (i.e., flight nurses and communications personnel) will be required to obtain at least minimum continuing education as directed by the certifying or licensing authority.			
Content and delivery. • The CE content shall be defined and approved by the Medical Director. • The CE content must be driven by the results of Quality Improvement efforts. • At least 50% of CE is in-person training • CE occurs on at least a semiannual or quarterly basis.			
Desired:			
• EMT's remain current on basic cardiac and current pediatric treatment techniques. • EMT-I's remain current on basic cardiac, current pediatric and basic trauma treatment techniques. • EMT-P's remain current on a nationally recognized and organized educational program for advanced cardiac, advanced trauma and advanced pediatric treatment techniques.			
4) Protocol/Standard of Care Management			
Required:			
Protocol Review. • Must be ongoing, updated against current literature and must be executed/approved by the Medical Director.			
Knowledge assessment. • A protocol assessment that reflects the ongoing protocol review. • The criteria will be jointly defined by the Medical Director and by the provider's administration. • The assessment's structure and content must be defined/approved by the Medical Director. • A defined remediation process with established timelines. • The reassessment must substantially different than the original, but must assess the identified weaknesses. • A defined re-education process & timeline that clearly identifies the criteria for successful completion and for revocation of credentials.			
Ongoing surveillance. • Evidence of ongoing management and surveillance of the organizations protocols.			
5) Credentialing Process			

All required characteristics listed in 1. (Initial Assessment of New Field Care Providers), 2. (Preceptorship/Internship), 3. (Required Professional Development), and 4. (Protocol/Standards of Care Management)			
Documentation of a system that requires each patient care provider to demonstrate skills appropriate for their level of training to the satisfaction of the medical director.			
An established process for reintegration (i.e. bringing a individual from administration back to the field)			
Bi-annual field evaluation by a Field Training Officer (or like position). Evaluation will consist of demonstration of patient care skills, scene control skills, conduct becoming of an EMS provider, etc			
5) Quality Improvement			
Required:			
A five component problem solving process with the following components: 6. Assessment 7. Goal Setting 8. Plan Development 9. Intervention 10. Progress Evaluation			
There shall be an assessment of the provider's daily activities**.**			
There shall be an assessment of the provider's response to emergency problems (sentinel events). (equipment failures, supply deficiencies, medication errors, fleet failures, etc.)			
There shall be an assessment of the following categories: 7. Personnel/Staffing 8. Response Fractiles and Averaging with correct statistical monitoring. 9. Clinical Care (Skills performance, Protocol Selection, Patient Assessment, etc.) 10. Customer Relations program. 11. Education 12. Administrative/operational policies			
Agencies shall have measurable clinical indicators that are regularly assessed for compliance with established thresholds.			
A monthly Random Chart Review of at least (5% or 30 whichever is greater) of all runs for compliance with documentation standards, correct protocol selection, and appropriate patient care.			
An annual cardiac arrest survival analysis in accordance with Ustein Criteria and reporting to the TDSHS Regional office.			
Individual performance of skills (5 minimum) will be tracked for each patient care provider.			
A system in place to monitor customer satisfaction and conflict resolution with the system.			
7) Service and Performance Inquiry System			
Required:			
A centralized location for receiving complaints.			
An established triage process to direct complaint resolution along potential disciplinary or Quality Improvement avenues.			
A process that ensures the confidentiality of all complaints and investigations.			

A method to track/trend the nature of each complaint and feed data into the Quality Improvement program.			
8) On-Going Corrective Action			
Required:			
Documentation of the results of the Quality Improvement efforts and Formal Complaint Tracking Process; and content of Continuing Education or individual training sessions to resolve identified deficiencies.			
A developed reporting structure that includes a public performance report.			
Privilege/confidentiality policies and methods.			
9) Established Committees			
Required:			
Committee(s): That identify, plan, implement and evaluate opportunities to improve performance in all areas of the EMS system.			
10) Medical Director Accreditation			
Required:			
An off-line medical director shall be: (1) a physician licensed to practice in Texas and shall be registered as an EMS medical director with the Texas Department of State Health Services; (2) familiar with the design and operation of EMS systems; (3) experienced in prehospital emergency care of acutely ill or injured patients; (4) actively involved in: (A) the emergency management of acutely ill and/or injured patients; (B) the training and/or continuing education of EMS personnel, under his or her direct supervision, at their respective levels of certification; (C) the medical audit, review, and critique of the performance of EMS personnel under his or her direct supervision; (D) the administrative and legislative environments affecting regional and/or state prehospital EMS organizations; (5) knowledgeable about local multi-casualty plans; (6) familiar with dispatch and communications operations of prehospital emergency units; and (7) knowledgeable about laws and regulations affecting local, regional, and state EMS operations.			

The medical director shall: (1) approve the level of prehospital care that may be rendered locally by each of the EMS personnel employed by and/or volunteering with the EMS under the medical director's supervision, regardless of the level of state certification, before the certificant is permitted to provide such care to the public; (2) establish and monitor compliance with field performance guidelines for EMS personnel; (3) establish and monitor compliance with training guidelines which meet or exceed the minimum standards set forth in the Texas Department of State Health Services EMS certification regulations; (4) develop, implement, and revise protocols and/or standing delegation orders, if appropriate, governing prehospital care and medical aspects of patient triage, transport, transfer, dispatch, extrication, rescue, and radio-telephone-telemetry communication by the EMS; (5) direct an effective system audit and quality assurance program; (6) determine standards and objectives for all medically related aspects of operation of the EMS including the inspection, evaluation, and approval of the system's performance specifications; (7) function as the primary liaison between the EMS administration and the local medical community, ascertaining and being responsive to the needs of each; (8) develop a letter or agreement or contract between the medical director(s) and the EMS administration outlining the specific responsibilities and authority of each. The agreement should describe the process or procedure by which a medical director may withdraw responsibility for EMS personnel for noncompliance with the Emergency Medical Service Act, the Health and Safety Code, Chapter 773, the rules adopted in this chapter, and/or accepted medical standards; (9) take or recommend appropriate remedial or corrective measures for EMS personnel, in conjunction with local EMS administration, which may include, but are not limited to, counseling, retraining, testing, probation, and/or field preceptorship; (10) suspend a certified EMS individual from medical care duties for due cause pending review and evaluation; (11) establish the circumstances under which a patient might not be transported; (12) establish the circumstances under which a patient may be transported against his or her will in accordance with state law, including approval of appropriate procedures, forms, and a review process; (13) establish criteria for selection of a patient's destination; and (14) develop and implement a comprehensive mechanism for management of patient care incidents, including patient complaints, allegations of substandard care, and deviations from established protocols and patient care standards. (15) be an active participant in the local Regional Advisory Committee			

Desired:			
Have completed the National Association of EMS Physicians Medical Director Training Seminar			
Membership in NAEMSP			
Attend the Texas College of Emergency Physicians Annual EMS Physicians Seminar			
Membership in the EMS Physicians of Texas			